Employment Service REVIEW

Vol. 15 JULY 1948 No. 7

Occupational Analysis

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UNITED STATES EMPLOYMENT SERVICE and AFFILIATED STATE EMPLOYMENT SERVICES

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Brock Memorial

A SPONTANEOUS impulse among the associates and friends of Eugene J. Brock, fatally injured recently while vacationing in Florida, has resulted in a plan to set up a permanent memorial in his honor.

Through this memorial, Gene's lifetime interest in a special project will be perpetuated. It is the service provided through the Hadley Correspondence School for the Blind, at Winnetka, Illinois, Gene Brock's own home town.

This school, which serves students all over the country and whose services Gene himself used shortly before his passing, provides instruction by correspondence in learning to read and write Braille. The School offers more than 50 home study courses—grade school, high school, and occupational—and maintains a Braille library which supplies students with all required textbooks. In cooperation with the University of Chicago, certain college courses are made available in Braille. The generosity of people interested in the blind makes it possible to carry on this work without cost to the blind. Therefore, no charge is made for the courses or for the use of books lent to students. Its facilities are available to all without regard to race, creed, or color. In addition to instruction by Braille, the School intends to give instruction through the medium of "Talking Books" which are phonograph records containing lectures or readings which would be circulated among the students.

The Hadley School plans soon to construct a modest building in which to house its library, materials and offices and in which resident instruction may be given students. It is to advance this project that the Brock Memorial Fund is being set up. The Fund will be invested intact by the School until construction actually begins. When the building is finished, a suitable plaque will identify it as a memorial to Eugene J. Brock, made possible by the contributions of his many friends.

Contributions to the Fund are income tax free and may be deducted from income tax returns. All who wish to participate in this permanent, living memorial to Gene Brock are urged to make their contributions as soon and as substantial as possible. Make checks payable to the Hadley School—Brock Memorial Fund. Send to Room 2123, Temporary Building U, 12th and Constitution Avenue, NW., Washington 25, D. C.

Employment Service REVIEW

Published by the U. S. Employment Service, United States Department of Labor, in cooperation with the affiliated State Employment Services

Vol. 15 JULY 1948 No. 7

At press time

To Aid Youth

THE UNITED STATES EMPLOYMENT SERVICE STAFF met in New York City on June 28, with representatives of over 20 national youth-serving organizations. The conference was designed to promote increased collaboration between public and private agencies in serving young people attempting the transition from school to work.

The participants in the conference included fraternal orders, social welfare organizations and church groups. They discussed the counseling program and placement services of the United States Employment Service and State Employment Services available to young people and how they and the youth-serving agencies can strengthen their cooperation and more adequately meet the vocational adjustment needs of young people. The Bureau of Labor Standards and the Child Labor Branch of the Department of Labor also participated in the conference. Plans for the meeting followed expression of interest, during recent months, from a number of national organizations whose programs include specific interest in vocational guidance.

Eagles' Award

BECAUSE OF THE "new hope and inspiration" given thousands of unfortunate Americans, Vice Admiral Ross T. McIntire, USN, (MC) Retd., received the National Civic Service Award of the Fraternal Order of Eagles on May 18.

Admiral McIntire, Chairman of the President's Committee on "NEPH" Week, received the award on a television broadcast at Washington's NBC station, WNBC, from Charles P. McCann, former Eagle president.

The Eagles, largely made up of working men, is one of America's largest fraternal organizations, having almost a million and a half members in 1,500 aeries. The Order is committed to a national program of employment for the handicapped and has cooperated with the Employment Service in many cities.

To New Fields

ALL OUR BEST WISHES for their new undertakings go with Lyle S. Garlock and William K. Shaughnessy who have recently left the national office of the Employment Service for other fields of work. Both have been with the ES for many years and leave behind a host of friends and well-wishers.

It was 14 years ago in Washington, D. C., that Lyle S. Garlock began his work with the Employment Service in the Occupational Research Program. Following approximately a year in the field, he was called back into the national office in June 1936, as a field representative. He served in the U. S. Navy during the war period and returned to the Employment Service in the fall of 1944. By 1947 he was Assistant Director for Field Service, in which capacity he served until March of this year, when he left the ES to take up new duties as Budget Examiner in the Office of Budget of the National Military Establishment located in the Pentagon.

Mr. Shaughnessy came into the Employment Service family as a regional economist in San Francisco in July 1939. His duties as Assistant Regional Representative in Region XII in 1942 were interrupted after only 3 months when he answered the call of the U. S. Navy. Four years later he returned to the USES national office as Assistant Chief in Charge of Reports in the Division of Reports and Analysis.

EFFECTIVE July 1, 1948, the United States Employment Service was transferred to the Federal Security Agency.

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The Late Lewis B. Schwellenbach

THE GENERAL assembly of the IAPES Convention at Windsor, Canada, stood in a 3-minute silent tribute, as the news of the death of Lewis B. Schwellenbach, Secretary of Labor, dramatically interrupted the proceedings on June 10, 1948.

A cabinet member since July 1, 1945, when he was appointed by President Truman, Secretary Schwellenbach had a long career of distinguished public service in the executive, judicial, and legislative branches of the Federal Government.

As Secretary of Labor, Mr. Schwellenbach gave his greatest efforts toward securing the rights of labor, attaining industrial peace within the framework of free collective bargaining, and building toward world peace through cooperation among the labor movements of the world.

Elected to the Senate from the State of Washington in 1934, Mr. Schwellenbach left Congress in 1940 to become U. S. District Judge for the Eastern District of Washington. Five years later, he resigned that life-time position to join the President's cabinet as Secretary of Labor.

Mr. Schwellenbach's death came as a great shock to the Nation. President Truman, and other high officials of Government extolled his great capacities for service. The President, speaking of the loss of "my warm, personal friend," said he was "a great senator, a great judge, and a great Secretary of Labor."

Late 1947 found Mr. Shaughnessy on an assignment for the State Department in Geneva, Switzerland, as adviser to the International Refugee Organization on statistics regarding displaced persons. It is to serve this same organization that Mr. Shaughnessy now leaves the USES to return to Geneva as Chief of Employment and Vocational Training, Preparatory Commission of IRO.

At ILO Meeting

Mr. Carl A. Heinz, Chief, Occupational Analysis Branch, Technical Service Division of the United States Employment Service, and Mr. William K. Shaughnessy, while serving as Chief of Reports and Technical Review Branch, Technical Service Division, participated in a "preliminary meeting of experts" called by the International Labour Organisation in Montreal, Canada April 15–17.

The purpose of the meeting was to discuss a proposed international classification of occupations for Census usage and a list of occupations for the international comparison of wage statistics. The committee was assigned the task of making proposals for the consideration of a future session of the International Conference of Labour Statisticians.

The United States delegation included representatives of the Bureau of the Budget, Bureau of the Census (population), the Bureau of Labor Statistics, and the United States Employment Service.

Employment Service Activities at a Glance, April 1948

	Number	Change from previous month
Over-All		
Reception contacts	7,409,600	5% decrease.
New applications	555,100	4% decrease.
Referrals, agricultural	147,000	113% increase.
Referrals, nonagricultural	843,400	10% increase.
Placements, agricultural	124,600	138% increase.
Placements, nonagricultural	457,800	11% increase.
Placements, men	303,200	17% increase.
Placements, women	154,600	1% increase.
Placements, handicapped	21,100	15% increase.
Counseling interviews	125,600	[a].
Employer visits	251,600	2% increase.
Veterans		
New applications	161,800	11% decrease.
Referrals, nonagricultural	292,000	13% increase.
Placements, nonagricultural	147,800	14% increase.
Placements, handicapped	11,700	14% increase.
Counseling interviews	61,300	6% decrease.

[a] Decrease of less than 0.5 percent.

Occupational Analysis In the Employment Service Today . . .

DURING THE LAST 10 or 12 years, much has been written about Occupational Analysis. Most of this writing, however, has been concerned with describing a particular technique or product of Occupational Analysis or examples of application in operations. Little has been written about Occuptaional Analysis as an activity. The theme chosen for this issue will permit the description of methods being used in State and local offices to achieve maximum effectiveness in the application of these Employment Service tools in day-to-day operations.

There is little question that the techniques and products of Occupational Analysis, in part or in whole, make a real contribution to every phase of Employment Service operation, including counseling, placement, employer relations, community relations, services to veterans, and farm placement. The extent of this contribution depends upon the understanding possessed by all personnel whatever their responsibility in employment service work, and the effort made to put these materials to work.

Some of the following articles tell why job descriptions, staffing schedules, occupational composition patterns, and other Occupational Analysis materials were prepared on a State or local office basis. Others describe continuing activities such as the preparation and use of job specifications or methods for putting knowledge of job relationships to work. Most of the articles discuss the benefits which have been derived from these activities in day-to-day local office operations and stress the need for equipping personnel at the local level for the performance of these functions. All of the authors have faithfully carried out the theme and have described Occupational Analysis activities at both the State and local office level which supply materials necessary for effective operations.

Occupational Analysis Materials—How to Use Them

By MURRAY G. HILL

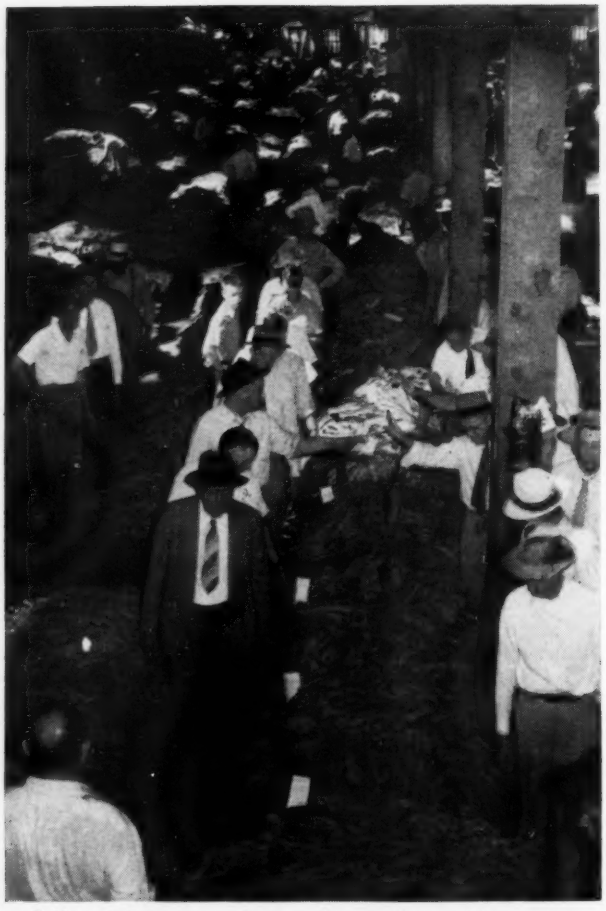
Industry and Training Supervisor, North Carolina State Employment Service

PEOPLE REACT most favorably to those things they understand and with which they are familiar. By the same token they are usually suspicious of and tend to avoid things they do not understand. This seems to be true of some Employment Service personnel, especially in connection with occupational analysis tools and techniques. Some, through lack of knowledge, have opposed the use of these materials and have looked with fear upon them as time-consuming, complicated, unadjustable, and plainly unworkable. In some cases great faith in, but little understanding of, proper use has caused failure.

Perhaps one fault has been in overselling some of the materials. No occupational analysis procedure or tool is a cure-all. Each has its specific uses and definite limitations. Failure to recognize this can hardly result in anything other than disappointment.

We claim that effective use of these materials is relatively simple and not above the ability and understanding of the average interviewer in our average local office. Of course he must (1) decide exactly what the problem is, (2) select the proper tool or technique to aid in solving it, (3) follow the proper procedure for its use and use it for that purpose only, and (4) be mindful of its limitations. We have constantly to remind our staff that our tools and techniques are "aids" in doing a job. Their use is a means to an end and not an end in itself. Our main job in the Employment Service is placing workers on jobs and it has been proved over and over that the effective application of our occupational analysis materials adds the *quality* element in the work of carrying out this responsibility.

In North Carolina we have had difficulty for years in promoting a better understanding and more effective use of the occupational analysis materials in our own local offices and by the industries they serve. Perhaps the main weakness of our earlier attempts in this promotional work was the failure to assign specific first- and second-line duties in connection with the promotion and application of occupational analysis materials to selected local office staff members. Thus,



Selling tobacco on the warehouse floor. Note auctioneer on left side and buyers on right side of row, signifying bids by hand.

it was often found that when a good training and promotional program was launched in an office, the tools and techniques would be applied effectively through the first few months and then their use would gradually decline. This situation was partially due to the fact that in the local office *everyone's* responsibility for keeping the tools and techniques in use became *no one's* responsibility. Then, all too often staff members who became proficient in the application of the occupational analysis materials were the first to be lured away from the Employment Service by attractive offers from industry.

In an attempt to develop an effective State-wide use of the occupational materials, we decided in 1947 to try a plan of designating and training several employer relations interviewers with additional first- and second-line responsibilities as occupational technicians in each of our offices having a staff of five or more. Briefly, the specific duties of the designated occupational technicians were: (1) to become thoroughly familiar with the content and practical application of all occupational analysis products in the local office, (2) to make a periodic check of all occupational information in the office and determine if such materials were accessible to all interviewers, and (3) to promote and assist in applying the tools and techniques in both internal and external operations, including industrial services.

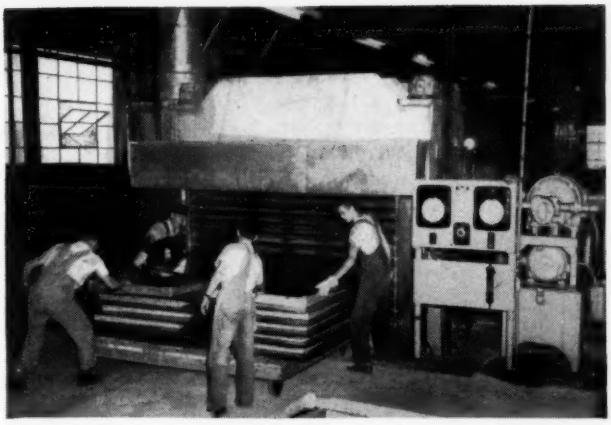
In launching our Occupational Technician Program we developed a "Training and Reference Manual on Occupational Analysis and Industrial Services." This served as a foundation for our formal training of the technicians. Most of the original persons designated as technicians were well-trained and experienced interviewers; therefore, our formal training was limited to a concentrated 1-day course and supplemented, as we had the opportunity, with on-the-job training by occupational analysts from the State Administrative Office.

Promising Program

The occupational technician plan is by far the most effective we have attempted in promoting the understanding and use of occupational analysis materials in local offices and by employers. Our managers' reports of local office activities (ES–209A) have consistently reflected an improvement in the effective application of the occupational analysis materials since this plan was inaugurated. We are still far from having a perfectly functioning program but we nevertheless feel it is potentially a great program. Our long-range aim, within the limits of this function or activity, is to attain the ideal situation where each office will be self-sufficient in effective promotion and application of all the occupational analysis materials.

We have found that another effective method of developing interest is to adapt those materials to meet local needs. We have a long-range plan whereby complete up-to-date occupational information will be compiled on four major industries in North Carolina—Tobacco Growing, Marketing and Processing; Furniture Manufacturing; Hosiery Manufacturing; and Cotton and Rayon Textile Manufacturing. In this way we hope eventually to have at our finger tips complete information on approximately 40 to 50 percent of the jobs in the State. The first two industry studies mentioned above have already been completed and are discussed below.

In 1945, our State Occupational Analysts, with the assistance of local office personnel, prepared a much needed industry study entitled *Tobacco in North Carolina, Growing, Marketing, and Processing*. This study was revised and printed early in 1947. The major content of this study includes 80 complete job summaries, 15 photographs, a map showing the location of the tobacco belts and markets in the State, a description of each of the processes involved, a flow chart of typical operations in a tobacco processing plant, and special job relationships to aid in keeping the seasonal tobacco workers employed the year round. The photographs are especially valuable as they convey an understanding of the jobs that words cannot express. This publication has been more enthusiastically received and used by local offices and employers in the State than any occupational study we have ever distributed.



Lay-up men pushing units of veneer stock on caul boards into the hot press.

In 1947, our State occupational analysts, with the assistance of some of the designated local office occupational technicians, completed the study *Occupational Information on Furniture Manufacturing In North Carolina*. As an initial step a composition study was prepared in one plant, followed by verification and additions from 27 other furniture plants. This 153-page study contains 267 complete job summaries, 41 photographs, a map showing the furniture manufacturing centers in the State, a description of each of the manufacturing processes involved by departments, a glossary, a typical staffing schedule, as well as other supporting information. As far as we can determine it is the most complete up-to-date information available on the jobs in the Wooden Household Furniture Industry. As in the tobacco study, we feel that the photographs in the furniture study are most helpful in describing the jobs. The accompanying photographs are typical of those in the study. We are confident that our local offices will be in a much better position to render quality service to our furniture manufacturers with this type of information available.

We have also had occasion to apply some of the tools and techniques in giving rather extended assistance to some of our local employers. One local office, with the assistance of State office-analysts, prepared 67 job specifications for a veneer manufacturing plant. These were developed with special emphasis on *physical demands* as the employer had agreed to hire physically handicapped persons to fill any jobs found suitable. Out of this activity, the local office developed a greater appreciation of job-order specifications and was enabled to work more closely with the employer.

Aptitude tests for the selection of workers in the furniture industry have been needed in our State for a long time. We have been assisting many employers in other industries to obtain test-selected workers, but tests have never been developed for specific jobs in the furniture industry. Realizing this need we decided that developing tests for this industry would be another way of promoting the use of occupational analysis materials. As an extension of our industry-wide study on furniture manufacturing, our Occupational Analysis Section, along with some of the local office occupational technicians, is now undertaking the difficult but worthwhile job of developing these selection tests. The use of local office personnel in this type of developmental work results in their having a much better understanding and appreciation of the end products. As a result of our present test developmental work, which is based on the GENERAL APTITUDE TEST BATTERY in accordance with standards specified by the National Office, we hope to have selection test batteries to cover the more important jobs in these five major furniture manufacturing departments: machining operations, sanding, assembling, upholstering, and finishing.

As has been stated before, the ultimate goal of all Employment Service activity is placing people on jobs. In the past perhaps too much emphasis has been placed on *how many* instead of *what kind* of placements. This, of course, is due to the use of the *number* element as a basis for allotment of personnel and other considerations in which one job filled *ten times* carries *ten times* more weight than the job filled *one time* by the right man. When we can ingrain into the entire Employment Service structure the philosophy that careful selection, through the use of all available tools and techniques, will result in a *satisfactory* worker, who in turn is a *satisfied* worker, we will have gone a long way in attaining our long-range objective.

Carving on a multiple-spindle-carving machine.

The author, left, presides at an occupational analysis planning session with F. E. Bohl and John V. Carton, representing the employer.

Increasing Placement Penetration . . .

Bringing the Local Office into the Picture

By GEORGE A. MEAD

Supervisor, Employer and Community Services for Indiana

LIMITATIONS imposed on staff time and travel funds in Indiana necessitated a complete change in our approach to Occupational Analysis service in local offices. It became increasingly difficult, if not impossible, to fulfill all employer requests for Occupational Analysis service with the small State office staff available.

It had been the practice of the State office to dispatch technicians to local offices to complete a project in an employer's establishment without inviting local office personnel to participate to any great extent. This was primarily necessary because of the absence of trained analysts in the local office.

However, under a reduced budget it became obvious that if all employers and all local offices were to receive the services to which they were entitled, it would be necessary not only to include local office staff in the actual work process, but representatives of employers as well.

The mechanics of testing presented no additional problems as far as the administration of tests was concerned. Each local office in the State has trained test examiners on the staff. The acquisition of job specifications for aptitude tests, however, was part of our major perplexity.

After passing through the planning stage, it was agreed that on request a State office technician should be sent to a local office for Occupational Analysis service. He will inform the Employment Service manager that the implementation of such a project will require the assignment of one or two interviewers, one of whom should be the Employer Relations representative (ERR) responsible for the account, if the request originates with an employer.

In the meeting with the employer, the advantages of assigning members of the employer's staff to participate in the study are pointed out. His own employees are in most cases familiar with the jobs; their presence in the plant is not so unusual and when the writing of the material is completed, the employer has his own people on hand, equipped with the "know how" to perpetuate the study.

Several advantages accrue to local office operation through this method. Members of the ES staff become better acquainted with the employer through collective effort on a common project; a more complete knowledge of the jobs in the establishment is gained; and with trained analysts on the staff, the local office is equipped to give *immediate* occupational analysis service to other employers in the area; and lastly, the office has on file comprehensive written job material for the information of all staff members.

After agreement as to the project requirements has been reached with both the employer and the local office, a training date is set and a mutual meeting place arranged. Sometimes such space is available in the employer's establishment and at other times the local office can furnish such space.

The training requires approximately 30 hours spread over 5 days. This was found necessary due to lunch-hour schedules and demand activities of the trainees. Training materials used are the *Guide for Analysing*

Jobs, the analysts' handbook, *Training and Reference Manual for Job Analysis*, and, when necessary, *Industrial Job Evaluation Systems*. The Indiana State Employment Service limits its job evaluation participation to a discussion of methods and means.

Several projects have been completed in employers' establishments at this writing. The results have been more than encouraging.

The practical application of this plan is shown in a typical example of our experience with a northeastern Indiana employer. The plant, a manufacturer of volatile liquid measuring devices in Fort Wayne, Ind., found it necessary to set up a plant-wide, job-evaluation system for its approximately 1,200 workers. The personnel director requested assistance through the Fort Wayne local office manager. On receipt of this request in the State office, immediate arrangements were made for the supervisor of employer and community services and the State office job analyst to go to Fort Wayne.

After some discussion with the local office manager, agreement was reached for the assignment of two interviewers to the task, one of whom was the ERR responsible for the employer account.

In the subsequent conference with the personnel director of the company, it was agreed that the company participants would be the personnel director, his assistant, two plant interviewers, and two clerical workers who would have the responsibility of typing the completed job forms.

Meeting space was arranged for in the offices of the plant. These were modern and comfortable in every respect. In addition, the group got together for luncheon each day in the factory cafeteria.

The trainers were the supervisor of employer and community services and the State job analyst. The first 2½ days were spent in following an outline of discussion and study involving the *Training and Reference Manual for Job Analysis* and the handbook, *Guide for Analyzing Jobs*.

At noon of the third day, the group broke up into smaller units for the purpose of observing preselected jobs in the plant. Each of the trainers went with a separate group, to assist and train them in their observations. .

After observing the jobs and making pertinent notes, the trainees reassembled in the conference room to begin the writing of the job analysis schedules. The trainers moved from one trainee to another answering questions and making suggested entries for the various items on the analysis form.

(*Continued on page 14*)

Photo by Sherwood Hinds, Jr

An occupational analysis training session gets under way. Left to right are: Lucille V. Parker and Dorothy L. Rauner, representing the employer, Jean Johnston, George Mead (standing) and Bernice L. Jenkins of the Indiana SES, John V. Carton (standing) ,Dorothy D. Moore, and J. M. McKay, Jr. representing the employer.

Annual Index Organizes Information . . .

The Effectiveness of Local Job Analysis

By JOHN B. WHITE

Job Analyst, Texas State Employment Service

WHAT DO YOU plan to have this worker do? How will he do it? What tools, techniques, equipment will be involved? What did you do on your last job? How did you do that? Did you use any special tools? Such questions are constantly being asked by Employment Service interviewers to glean from employers and applicants dependable information through which abilities and aptitudes of workers can be directed to suitable jobs.

Of course a wealth of information has been made available to the interviewers by the national office through job analysis. But all too often after exhausting this information and one's own ingenuity as to questioning, the interviewer may still be in the dark as to what is required. After many apparently suitable applicants have been rejected, it becomes necessary to look into the actualities of the job.

Sometimes the decision to look at the job arises from other than direct placement needs. Problems of turn-over, training, testing, or job evaluation may give rise to the need for local job studies. Job analysts in local offices throughout the country constantly collect, organize, and document valuable information about jobs for local use. The information is recorded on staffing schedules, job analysis schedules, job descriptions, job specifications, physical demands analyses, and occasionally an ambitious job evaluation study.

Local Information Serves National Needs

Often a local office will document useful information that has never been collected elsewhere. As job contents change and new jobs arise, they are reflected in the local studies. Thus, local employment offices have become excellent sources for job information that can be made useful for many purposes other than the local ones for which it is prepared. The information can be used in keeping the DICTIONARY OF OCCUPATIONAL TITLES current, and in preparing industry composition patterns, occupational guides, and other nationally developed aids. Information and experiences of one local office often can be helpful in other offices if made available to them.

The State office of the Texas Employment Commission keeps an annual "Index of Local Job Analysis Information" which is kept current with a supplement each quarter, and which is made available to all offices throughout the State. The jobs studied are arranged numerically in the first column by dictionary codes or partial codes. Other columns reveal dictonary or plant titles; industry designations and codes; whether the information is contained in a job analysis schedule, job specification, or other form; number of employees on the job and in the establishment; and the district and date of the study.

The index has numerous uses in the State office. It shows the types of jobs on which information is inadequate; it indicates industries and jobs not covered by the DICTIONARY; it provides training conference material; it high-lights districts of the State doing much or little job analysis work.

Local offices often, after referring to the index, request copies of studies made elsewhere to assist in local operations or in making similar studies. One office was requested by the municiapl government for assistance in identifying its jobs for the creation of a classification and compensation plan. Two other offices had already completed similar studies. Copies of these were requested; the time for the study was greatly reduced and the quality was doubtless increased. Districts are interested in comparing their accomplishments with others. Thus, the index serves a secondary purpose of healthy stimulation of job analysis activity. Generally only one or two job analysts are assigned to a district. They sometimes feel isolated, and an opportunity to request copies of work of other analysts provides excellent training for them. They are able to learn from one another by seeing some of the best and some of the poorest work being done in the State. And they can learn much from both the good and the poor efforts.

The index has been especially useful as a background for discussions with employers and as a medium for the crystallization of ideas concerning job analysis activities. Difficulties have been alleviated in one locality through job analysis activity. This is used in other localities in discussions with employers in the same industry. Specific experiences can be cited. The stage is set for discussions among employers of an industry that results in requests for studies from which both the local office and the employer will benefit. Requests in some instances have been too numerous for the local office to handle immediately, but satisfactory arrangements have been made for studies as personnel could be made available for them.

The value of the work of local job analysts must not be overlooked. Through them we can reasonably hope to raise the quality of the work of our local offices by supplying well organized, dependable information and by keeping before our personnel the scientific job analysis approach to placement work. The analysts, their co-workers, and their supervisors, must be made aware of the importance of their work. We believe the "Index of Local Job Analysis Information" is one of many ways to call attention to the quantity and value of their services.

Worker and Employer Must be Served . . .

Occupational Analysis Assures More and Better Placements

By THOMAS E. HUNTER

Occupational Analyst, Idaho State Employment Service

WE SHALL DEAL principally with two tools developed by occupational analysis: job analysis and job specifications. It is difficult to measure in precise numbers what contribution any one of our operating tools has made to increased placements, since quantity of placements depends on so many factors—war or peacetime conditions, the prosperity of the Nation, and the supply and character of the workers. But it is not so difficult to prove that occupational analysis has resulted in service to more industries, more and better placements in certain departments, and better placements in all industries served.

Following the establishment of a Nation-wide Employment Service in 1933, major emphasis fell on worker information. Interviewers were trained to secure the applicant's detailed work history, to record it, and to evaluate it. However, little information was available about jobs, making it difficult to align the workers' qualifications with available job openings. With the development of the DICTIONARY OF OCCUPATIONAL TITLES and kindred tools, applicant and job information have become more in balance, and it is now possible to match workers with jobs on a scientific rather than a hit-or-miss basis. Occupational analysis provided the basic material from which better placement procedures were developed.

Probably the greatest contribution of job analysis to more and better placements is the development and use of the Job Analysis Formula. The local place-

Employment Service tools which are the products of Occupational Analysis.

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ment officer must have specific information of the job requirements in the plant from which the order emanates. When worker and job information are recorded in identical terminology they are extremely useful. Such information is even more useful when gathered locally and expressed in terms that the applicant, the employer, the interviewer, and the counselor can understand. When expressed in terms of "What the worker does," "How he does it," "Why he does it," and "What is involved in the doing," job information is easily comprehended.

It might be asked, Why does the interviewer virtually have to squeeze the information about tasks, responsibilities, and experience requirements out of the employer? Or, Why do we have to search for this job knowledge, since all of our tools and aids are built on job research? The answer is that job content is changing with machine-gun rapidity. While our volume job descriptions are good, they are based on material gathered several years ago. The same is true of many of our DICTIONARY definitions. In some instances both descriptions and titles are out of date. Then, too, the material on which to classify and define some jobs, such as farm jobs, was too scanty to begin with, and even some of the definitions that are clear and concise do not apply to jobs as now performed.

Performance Requirements Change

Many jobs have changed, Nation-wide as well as locally. Take building construction, for example. Gone are the teams and wagons for excavation work. Instead we have power-shovels and dump-trucks, small and huge. Methods of placing concrete have been revolutionized. Many structures are no longer built on the site, but are prefabricated in some distant place and assembled on the foundations. All this has resulted in changes in performance requirements.

Over half the placements in Idaho are agricultural. Three years ago 90 percent of the sugar beets were topped by hand. It is estimated that over 60 percent of them will be topped by machinery this year. Three years ago all beets were blocked and thinned by workers stooping, crouching, or bending over the rows, wielding a short handled hoe. In many fields today these same workers are comfortably seated on the frame of a moving vehicle and merely reach down and perform the operations of blocking and thinning as the machine moves along the row. What method is the beet grower using? The only way we can find out is to quiz the employer or go see for ourselves. Perhaps next year he will use an airplane. If so, maybe we'll have to use an airplane to make our job analysis.

The most efficient interviewer or counselor is the one who has wide knowledge of occupations and employment fields. Approximately 57 percent of the managers and interviewers in Idaho SES have come into the Service since VJ-Day. Most of them are veterans, nearly all of whom had limited or no previous experience in any industry. In our operations, all personnel except clerical workers are required to take training in job analysis. Most of them acquire a working knowledge of the technique. As a result, the scope of their knowledge of jobs has widened by leaps and bounds. Older employees have accumulated their knowledge through years of observation and experience. The new ones cannot wait to develop this knowledge through the years but must be able to put their fingers on up-to-date job information at any moment. Job analysis has therefore helped both the old and the new employee.

Job analysis has accelerated the training process. Mr. F. P. Kelso, an office manager in the mining district, says, "When Mr. Peterson accepted temporary work in this office, he knew that this was a mining camp, but that is about all he knew of the industry. Many times a day he was confronted with situations that he had to refer to me. After several days of this I dug out all of the job analyses I had prepared on the mining industry and passed them on to him. He studied each one thoroughly. After he reviewed these several times, there was a very noticeable improvement in his interviewing of potential mine workers, both inexperienced and experienced. Mr. Peterson can surely fill that bill at this time. Job analysis should play an even larger part in the induction of new office personnel."

Selective Placement cannot be successful without occupational analysis. There is no way to determine the physical demands necessary for successful performance except to go and look at a job and record the frequency or intensity of the physical activities required. Idaho had 1,420 placements of disabled workers during 1947; 1,145 were veterans. It is a certainty that more and better placements were made as a result of using occupational analysis methods.

The Boise office has served the Olson Manufacturing Company, fabricators of many steel products during the war and heavy farm and mining machinery since then. Some months ago, complete job specifications were prepared on several entry jobs. The superintendent was provided with a copy of individual specifications, each of which carried a number. When in need of workers the superintendent calls the local office and says, "Send me so many workers, specification number 1, 2, 3, or 4." Sam Calloway, the superintendent, volunteers, "It aids me in informing the office of my needs, saves time, and results in better referrals."

Eloquent Testimony

The best evidence of the efficacy of occupational analysis techniques is the testimony of men who use them. The quotations below were not solicited. They are the experiences of the managers as expressed in papers read at the last managers' meeting.

From our Pocatello office manager, W. B. Cox:

The principal use made of job analysis is for the purpose of enabling the interviewers to make better referrals. Unfortunately placement officers cannot be familiar with every job in every plant in the area. We also find job analyses to be of

(*Continued on page 16*)

Integrated Job Specification Program . . .

Improves Local Office Operations

By H. L. BERGSLAND

Job Analyst, Minnesota State Employment Service

LOCAL EMPLOYMENT SERVICE offices have gradually grown to be logical centers relating to occupational information in their respective communities. Employers and employees alike are more and more aware of the value of publications, tools and techniques developed by the United States Employment Service.

Many of the materials prepared for national use include as many variables as possible in order that the information given may be used by Employment Service personnel in all local offices throughout the Nation. Such broad coverage is effectively used as basic reference material and for training purposes.

Due to wide variation in the local community activities, each local office is faced with the problem of adapting published occupational information to local situations. To successfully match workers' qualifications and capacities with job requirements and demands, interviewers require descriptions of work performed locally, of local employers' requirements, and of the physical demands, working conditions and hazards involved in specific jobs in specific establishments. To supply such specific information, job specifications are prepared locally by recording information obtained from actual observation of a job in a given employer's establishment.

To obtain maximum benefit from the use of local job specifications, consideration should be given to the form to be used, content and distribution of materials prepared.

Eight- by ten-inch paper stock should be used to form a 5″ x 8″ record when stock is folded in the center to fit into file drawers generally used for employer order cards. Sufficiently light weight paper stock should be used to allow the preparation of carbon copies of all job specifications.

Information recorded should include identifying information about the specific job, establishment and industry; description of work performed; employer's minimum requirements; aptitude fields observed; physical demands, working conditions and hazards surrounding the job.

A sufficient number of copies of all job specifications should be prepared to supply one copy to the employer concerned, one for a local office master file and one copy to be attached to copy of the employer order while in use in selection and referral.

Local office operations are improved in each area of the 6-Point Program of the Employment Service when job specifications are prepared and routed as outlined above.

1. ***Placement.***—Temporarily inactive job specifications are filed alphabetically by establishment immediately behind employer orders in the active order file. Job specifications are, thereby, easily available to the order taker at the time when job requirements are being discussed with the employer. The DICTIONARY OF OCCUPATIONAL TITLES AND CODES and the plant titles used by the employer are recorded on the face of the 5″ x 8″ index card used to separate specifications by establishment. The name of the establishment appears on the tab of the index card.

Thus, by lifting the index card while the employer is placing an order over the telephone, the order taker can determine at a glance whether or not the job discussed has been covered by a job specification. When the index card indicates that the job has been described, the job specification desired can be quickly located and removed from the file, attached to the placement unit copy of the order and routed for use by selection and referral interviewers.

Less than one half of the time required to complete an order from the employer's oral description of a job is needed when a job specification has previously been prepared. The employer is relieved of repeating a detailed description of the job and the order taker is not required to repeat the items recorded on the job specification form.

In addition to the time saved, a more complete description of the work requirements, physical demands, working conditions and hazards is made available to improve the process of selection and referral of qualified applicants. Complete job information simplifies the matching of job requirements with worker qualifications, whereby, the number of applicants hired compared with the number referred is increased.

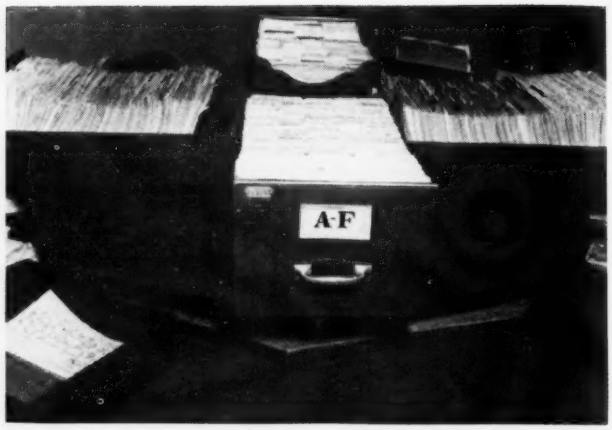
2. ***Special Services to Veterans.***—As in the case of nonveteran referrals, more effective matching of veterans' qualifications and capacities with job requirements and demands is made possible. A greater proportion of applicants referred are hired.

Eighteen job profiles can be reviewed at one time by the use of a Physical Demand Summary Form. This form is prepared by the analyst, listing all jobs covered by local job specifications, and completed by posting items from the Physical Demands and Working Conditions Check List section of each specification to the space provided on the summary form.

By the use of the Physical Demand Summary Form, interviewers may select jobs which indicate physical demands within the scope of an applicant's capacities. When a suitable job is located, a telephone call to the employer involved will often develop an order. Frequently, good placements result from this procedure.

In developing on-the-job training or apprentice-

Revolving table top facilities locating employer orders filed alphabetically.



Filed behind active orders, Job Specifications are quickly available to order takers.

ship training opportunities, job specifications point out the training needs of jobs involved. Often, the time required to reach normal production helps the Veterans Employment Representative determine whether or not either training plan is suitable for a given job.

3. ***Employment Counseling.***—Information recorded on job specifications, including job details, training time, machines and tools used, minimum employer and union requirements, testing needs, physical demands and working conditions, assists counselors in their work of developing individual worker's vocational plans.

Matching of a worker's qualifications and capacities with the work requirements and demands of a job is improved with the use of job specifications.

Job specifications assist counselors in determining whether or not specific aptitude or proficiency test batteries should be used to measure an applicant's potential or proven ability to perform well-defined tasks. Through the joint efforts of the job analyst and a test technician, observable aptitudes displayed in a given job may be suggested by a check mark in the space provided on the job specification form.

Indirectly, job specifications assist counselors by helping the test technicians obtain a clear understanding of the elements described for which specific aptitudes are required.

4. ***Labor Market Information.***—Job specifications play a prominent part by supplying local occupational variables in adapting Nation-wide labor market information to local employment office situations.

Job specifications assist labor market analysts in preparing local contributions for inclusion in the national Occupational Guide Series.

5. ***Industrial Services.***—Many of the employers' personnel problems which suggest local employment office assistance require specific job information as a basis for the solution of such problems. Specific areas include recruiting, by describing job requirements; excessive turn-over, by focusing attention on physical demands and working conditions, induction training given, and minimum employer requirements; preparation of staffing schedules and personnel records, by offering a pattern for job analysis; staff training, by presenting definitions of work pointing out training needs; transfers and promotions, by disclosing related work areas and by suggesting the use of test batteries to assist in predicting workers' potential abilities.

6. ***Cooperation With Community Groups.***—Local job specifications are useful in activities including community groups.

Employment counseling groups at local public schools, vocational guidance organizations and Veterans Administration often request specific job information for use in developing vocation plans for students and individual applicants.

State and Federal apprenticeship training officers are offered assistance in planning local apprenticeship arrangements for specific jobs described in local office job specifications.

Integration of job specifications with local office operations in our State has produced improvement in all phases of the employment process.

Complete job information relating to local jobs can be supplied to staff members at the time when such information is most needed for effective results.

In less than 4 years time over 3,600 job specifications have been prepared in 994 employer establishments, and entry jobs have been analyzed in 150 of 170 industries currently active in the State. The remaining 20 industries employ an insignificant number of workers.

Job specifications serve well as tools in creating interest in the local employment service program by employer, labor, civic, and educational organizations.

Time consumed in the preparation of job specifications is quickly offset by the time saved in order taking, selection, referral and counseling activities.

As a basis for staff training, locally prepared job specifications have proved valuable.

Complete information relating to local jobs has increased both amount and quality of work done by interviewers with limited experience and training.

A typical conference scene held for employers in the Zanesville, Ohio Local Office on the "Physical Demands Approach," NEPH Week 1947.

Almost Every Local Office Could Profit by One . . .

Why an Employer Institute on Job Analysis?

By JOHN G. TURNER

Supervisor, Industrial Services Central Office, Ohio State Employment Service

THE PLANNING and conducting of institutes in the local office is more than good business. It is the application of common sense to the many problems and obstacles which at times prevent our interpreting to industry and labor the rightful place a public employment agency should enjoy in the community. The institute is a service approach to these problems and is a positive vehicle for achieving the maximum in public relations and the utmost in placement possibilities.

It is my opinion, and this is not based upon wishful thinking, that institutes in job analysis or in any of its byproducts are justified because we will never succeed in extending Occupational Analysis by presenting the so-called tools from the angle of how "tremendously good" they are and the vast amount of research back of them. On the other hand we *will* gain acceptance of our *service program* by discussing with employers their actual everyday operating problems and then presenting certain of these materials in an effort to eliminate, or at least minimize, the impact of such problems on personnel management functions.

The institute is a unique group method for speeding up the extension of needed technical aid and service. It is purposeful and more effective when based on the problem approach. This implies that careful planning, shared jointly by the State and local offices, should go into it. The local office occupational analyst is the logical one, by virtue of his training and experience, to spearhead this planning. His latitude of service is best seen when he operates as an integral part of the employer field visiting program, and thus is vigilant in appraising the value of extended services in placement activity.

Of the many successful institutes planned and conducted for Ohio industry in many phases of the Occupational Analysis-Industrial Services methods and techniques, none has been more productive of

good public relations and placement values than the recent one held for Cincinnati management in the "Multi-Purpose Use of Job Analysis," and aptly described in "The Cincinnati Plan."[1] Here we find tangible and factual evidence to support my faith in the institute as a vehicle for good. Let's review the record and observe the facts as reported in the ES–209A [2] and in other available appraisal data from the Cincinnati experience.

On the question of *community acceptance* and *our ability to get needed occupational data on orders*, the report states:

Considerable interest in OSES service has been shown by representatives of the 19 larger firms in the area. The volume of orders from the companies which had representatives in the conferences has shown an increase. Our order takers have commented upon the higher quality of orders and the greater ease in securing the needed information on orders which are being secured from these industrial personnel.

What effect does this acceptance have on the over-all field visiting program? The report finds:

The whole employer field visiting program has been stepped up. The volume and quality of employer visits has overshadowed those of a year ago. *Local office personnel have noticed the considerable improvement in employer and community acceptance of representatives from this office.* During the first 3 months of 1948 this office has made 70 percent of the number of field visits which were made during the first half of the 1947 calendar year. *Result:* An increase in job openings received during March over the previous 2-month period.

What is the effect on over-all placements? [3] *Employee Morale?* The report continues:

Placements rose more rapidly than referrals: a 30 percent increase was recorded during March over the previous month. A total of over 3,100 placements in March was the highest record for that month since VJ-Day and set a new postwar record since controls were lifted. Male placements increased 26 percent while female placements increased 38 percent. Ratio of referrals to placements was 1.6 referrals to one placement. (In February, it required 1.8 referrals to make one placement.) The OSES placements to new hires in ES–270 reporting firms amounted to approximately 10 percent.

Can institutes influence the need for realistic hiring requirements? We find:

One employer, who recently attended the personnel management conference and was impressed with the necessity of realistic hiring requirements, has placed an order with our office for a stenographer who meets the OSES Stenographer Test regardless of race or creed.

Are employers using our methods and techniques once they are exposed to them? An employer writes to the Local Office Manager:

If these specifications (attached) meet with *your* approval, we will prepare others. So far your referrals of women workers during the past 3 weeks has been outstanding. I have always thought your office had done a fair job, but lately your selections have been very good.

Are employers giving us adequate information on their orders? A Placement Interviewer pens this interoffice memorandum to his supervisor:

On February 17, 1948, I received a telephone call from an employer for a drum filler. He gave such a clear, distinct, and yet brief description of the job duties that I thought to myself that he would make a good order taker for the OSES. He mentioned that he had taken part in the training conference for employers given in this office and that the conference leaders had mentioned the desirability of terse yet complete job descriptions. *P. S.:* We got a hire on order (#3–2219) of February 17, 1948. Often their orders had been cancelled with no hires in the past.

Through institutes can we recapture old as well as build new business for the Employment Service? A Placement Supervisor reports to the manager of the Cincinnati employment office:

This office has not had an order from this employer in more than 2 years, and relations with him before that time were not cordial. The personnel manager was induced to participate in our recent conference on job analysis. He was taken on a tour of this office. Largely as a result of this service, he gave us an order for 10 laborers on March 30. Thirteen referrals were made on the following day, and verification proved that eight were hired, two not hired, and three did not report. Two men were hired at the gate by the employer. I feel certain that the three DNR's were fully qualified workers and would have been hired had they reported.

According to one OSES operator, "Every well-functioning local office should have an institute program of service to management and labor."

(*Continued from page 7*)

On completion of the schedules by the group, volunteers read aloud what they had written. The group then criticized and suggested in accordance with what they had learned from the text and from previous discussions.

The content of the schedules was verified with line personnel, necessary changes were made, whereupon the schedules became part of the permanent plant record.

The last full day of the training was devoted to the discussion of job evaluation systems. This was more in the nature of an appreciation course, on completion of which the management would be in a position to choose whichever system best fitted its needs.

This ended the formal training. As the work in the plant progressed, the State office technicians rendered consultant service by mail and personal visit. Copies of the job schedules were made for the local and State ES offices.

The management is pleased with the training and confident of its results. It has just about completed its job evaluation program on the basis of the instruction given by the Employment Service.

The local office enjoys the best of relationships with the firm. Through complete and authentic job information, the percentage of ES placements to total accessions was 51 percent in the 9-month period following completion of the project.

The local office manager and staff are especially pleased with the presence on their staff of two trained job analysts who are in a position to broaden job analysis activities in the Fort Wayne area.

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[1] Thirty-two hours training given industrial representatives from 19 firms in a work-study conference on job analysis as seen in a "job picture." The plan presents the three phases of the institute approach: *planning*, *operational*, *follow-up*. Significant appraisal data is included.

[2] Manager's Report of Local Office Activities, March 1948.

[3] Special order check on 11 of 19 firms surveyed, as of March 1, revealed 55 orders for 104 openings.

Pattern Designed for Operation Farm Placement . . .

OCCUPATIONAL ANALYSIS AND AGRICULTURE

By RAYMOND J. KILROY

Chief Occupational Analyst, Arizona State Employment Service

THE PROCESS of keeping abreast of current changes required in the Employment Service is nothing new to Occupational Analysis; in fact it is the prime requisite of good occupational analysis to keep local employment offices and industry supplied with material and tools demanded by an ever-changing labor market. However, a new emphasis was placed on the need for occupational analysis in Arizona when the Employment Service took over operations of the Farm Placement Program on January 1, 1948.

The story begins with a local office managers' meeting held in Phoenix in December 1947, prior to inaugurating the Farm Placement Program in Arizona. At this meeting it was brought out that we had few local office staff members with experience in the agricultural program prior to 1942, and although we had considerable information on agriculuture, little of it was of a practical nature specific enough for use by Employment Service personnel. If we were to have an efficient Farm Placement Program it would be necessary, among other things, to equip our local offices with workable tools.

Forearmed With the Facts

The problem that confronted Occupational Analysis was to develop material that would forearm our local office personnel with a knowledge and understanding of what agriculture and agricultural jobs meant in terms of dealing with farm associations, ranchers, farmers, and agricultural workers. Coupled with this was the pressure of time. To be of value the material would have to be ready within a month. With our limited Occupational Analysis and Industrial Services staff this appeared, at first, to be a large order.

The problem resolved itself to reasonable simplicity after deciding that an Occupational Composition Pattern would be the most feasible tool to meet the need in the Farm Placement Program.

Obtaining information on agriculture and agricultural jobs presented a more difficult problem, due to the time element. It is one thing for an occupational analyst to cover a nonagricultural industry occupying a small area, but it is another matter to cover the agricultural industry in a State the size of Arizona, which is the fifth largest in the United States. A different method of gathering information would have to be used if we were to have it in time.

Working in collaboration with the Farm Placement Division it was decided that our local offices, key agricultural men, local farm groups, and farm agencies would be the best and quickest source of information on agriculture. Their services were enlisted and a request was sent out for information needed on such items as job content of agricultural jobs, planting and harvesting seasons, irrigated and dry farms, and type of crops produced.

When received, the informational material was carefully analyzed and screened. Only those items pertinent for use were selected, sorted, and grouped preparatory to incorporating in the Occupational Composition Pattern. The material was outlined, piece by piece, in rough draft until it began to take form as an Occupational Composition Pattern.

Included in the rought draft was the use of the Pattern in local employment offices, community planning, and employer relations. A process description was written to provide background information on agriculture, including methods of irrigation, the peculiarity of seasons ranging from farms producing one to three crops a year, and the type of crops produced, which would give a general over-all picture of agriculture in Arizona.

The major Fields of Work in agriculture were organized under four divisions: Business Relations Work, Service Work, Agricultural Work, and Mechanical or Industrialized Agricultural Work. Agriculture was subdivided into General Farming, Animal Care, and Crop Farming with a further break-down of Animal Care and Crop Farming. Jobs in agriculture were classified and coded in accordance with PART I of the DICTIONARY OF OCCUPATIONAL TITLES. The jobs were then arranged and grouped under their respective Fields of Work. Those jobs most commonly used in agriculture were asterisked to point up their importance.

The Fields of Work were related directly to PART IV of the DICTIONARY OF OCCUPATIONAL TITLES, through the entry coding system, rather than through the Conversion Tables, thus giving a ready reference to our entry and non-entry jobs in Agriculture.

While this modification of the Fields of Work

WHEN the Arizona State Employment Service inaugurated the Farm Placement Program we were in need of material that would equip our local office staff with knowledge of agriculture and agricultural jobs. A request was made of the Occupational Analysis and Industrial Services Division in our State Administrative Office, and the Pattern was the result. The Pattern has been accepted by the Farm Placement Division and our local offices as the answer to what was wanted. Local farm groups and farm advisory committees have also expressed an interest in the Pattern.

We personally believe this work accents the need of local Occupational Analysis; without which it would not have been possible to supply the material at a time when it was sorely needed in our Farm Placement Program.—JAMES A. RORK, *Director, Employment Service Division.*

Groupings is a departure from the format of Occupational Composition Patterns, it was necessary, since Fields of Work Groupings, in their present form, are best adapted to nonagricultural industries. This departure has not lessened the value of the Pattern but rather has increased its use through direct reference to the DICTIONARY, PARTS I, IV, and SUPPLEMENT without the necessity of using the Conversion Tables. Fields of Work Groupings were then summarized under one heading to show the percentage distribution of workers in each division and subdivision.

We now had an Occupational Composition Pattern for the Agricultural Industry in Arizona. It is to the credit of all who participated in this work, especially Richard Salter, Assistant State Farm Placement Supervisor, who supplied the basic agricultural information and assisted in its preparation that the Pattern was completed within the 30-day period.

Comments from our local employment offices and others interested in agriculture indicate that this occupational analysis product is serving a useful purpose in the Farm Placement Program. Some of these indications are:

The recapitulation of workers in the major fields of work disclosed an enlightening fact on the distribution of workers. It was found that while citrus required few acres when compared with the vast acreage in cattle ranching, yet the number of workers needed was the same for both (3 percent). It was also found that cotton required 56 percent of all agricultural workers. In a State which is known by the common expression of "The State of the 4 C's—Copper, Cattle, Cotton, and Citrus," this data on erratic worker distribution in agriculture pointed out the need for careful planning in farm placement operations.

The process description provided our employer relations personnel with basic information on agriculture, and prepared with this knowledge they are better able to discuss employment service in the language the agricultural employer knows.

The Fields of Work Groupings provides the local office staff with specific information on jobs in the various divisions of agriculture. With this information they are able to concentrate on the jobs which may result in potential placements with specific agricultural employers.

The Occupational Composition Pattern classifies and codes agricultural jobs in their respective branches of agriculture. Our local offices have found that the Pattern provides a short cut in locating specific agricultural codes and are using it as part of the DICTIONARY OF OCCUPATIONAL TITLES AND CODES.

In summary, it has been conceded the Pattern has been worth the time and effort spent in its preparation. We are now engaged in preparing two additional patterns, one for the Agricultural and Horticultural Service, and the other for the Packing Industry in Arizona. It is felt that they will help our local offices in an understanding of these other two phases of agriculture.

(*Continued from page 10*)

value in the counseling program inasmuch as they furnish the counselor with an accurate picture of the tasks and requirements of jobs and the avocations, training, and experiences which lead to them.

A local food processing plant called and placed an order for a Maintenance Mechanic. The employer was very vague about the duties and requirements of the job. No one in our office was familiar with the duties of a Maintenance Mechanic in that particular plant so we decided that in order that we might be able to make a good referral it would be necessary to study the job. This was done and when the employer saw the study he remarked that he did not realize that the job in question had so many requirements. Two days later the job was filled from the employment office by referral of a man who had the qualifications necessary for the job but could *not have met the requirements of many maintenance mechanic jobs.*

Said R. S. Cutler, our Jerome office manager:

When the Job Analysis technique was first introduced into my office, I will admit that I and other members of my staff were dubious of its real value in our operations. It appeared to us that the program would be more beneficial in larger local offices serving greater industrial areas. We were confident that we knew all about the jobs performed in our local office area and could see very little value in recording the What, Why, and How of tasks performed. Since the introduction of this technique, we have prepared 64 complete job analyses and 62 job specifications. These cover the more common jobs in our local office area and we choose the jobs to be studied from the standpoint of usability to us in our everyday operations.

It has been surprising to us to find out actually how little we knew about the tasks performed in the more common jobs.

From my experience in the preparation of job analyses I have learned a number of important and helpful things, such as: the more common job titles used by employers in this area; the technique which has improved my ability and the ability of members of my staff to take a better employer order, to make a better selection and to conduct a better applicant interview; a technique which has enabled me better to evaluate specifications and in some instances to convince the employer that his hiring specifications were too restrictive. It has enabled me to increase placement of the physically handicapped since, through a more complete knowledge of the job specification, we have been able to convince the employer that there were many handicapped applicants who could perform the task involved in a job; it has provided a tool which has been exceedingly helpful in counseling, especially in the counseling of handicapped workers; it has provided me with more complete knowledge of employer problems and has in some instances provided help in reducing employer turn-over; it has enabled us to lower our ratio of referrals to placements; it has made easier our employer visiting program.

I am convinced that job analysis has a place in any efficiently operated employment service. It is a real service that can be rendered to employers and it is a helpful tool in local office operations.

Finally occupational analysis is almost invaluable in employer relations. Many employers "miss the boat" in terms of over-stressing recruitment of workers instead of emphasizing their proper utilization. Occupational analysis appeals to the employer because he is always looking for something that will increase production and raise profits. The application of occupational analysis techniques has a tendency to do both. The final test of the Employment Service is what it does for the worker and employer, and it is well to remember that the employer provides the job openings. A service that helps him will pay off in more and better placements.

They Pay Dividends in Local Office Operations . . .

Plant Studies and Their Benefits

By JEROME R. SEHULSTER

Occupational Analysis and Industrial Services, New Jersey State Employment Service

THE FACT THAT the Elizabeth Local Office makes fewer placements today with a certain employer than a year ago might be misinterpreted as an indication that improving Employment Service operations is a self-defeating aim. However, examination of the record will disclose that the local office is now accounting for a greater percentage of this employer's new accessions and that the plant turnover has been materially reduced. In terms of value to the employer, the workers and the community at large, such service is the real employment service.

A plant study was involved in this instance. But before discussing the situation further, let us understand what is meant by a plant study. Although no longer one of the prescribed Employment Service techniques, the prewar plant study finds its counterpart in the present day staffing schedule. However, the term "plant study" is still a convenient one to use since in its generic sense it has an obvious meaning in the Employment Service. We think of a "plant study" as the study of the jobs, employment processes and conditions of employment in a plant or employing establishment.

Now to get back to the story—the Elizabeth employer had shown a turn-over rate higher than 6 percent a month. The local office had orders for only one or two jobs but placed ten or twelve workers during the first 2 months. It was known that the employer was recruiting through other sources as well, but, lacking any knowledge of the staffing and organization of the plant, the local office could not immediately be aware of the wasted recruitment efforts.

The conclusion that a problem existed was drawn almost simultaneously from several sources: the reappearance of placed applicants at the local office after little more than a month of employment; apparent quits and discharges while verified openings remained to be filled; and finally the employer's request through the Employer Relations Representative for assistance in handling a difficult personnel problem.

Preliminary discussion with the employer disclosed that the problem was localized in a single department and, as a result, the plant study concentrated at this point. These significant facts were obtained:

1. A manual assembly job, normally employing 40 workers or less than 10 percent of the plant total, accounted directly for about half of the total plant turn-over.

2. Since the output on this job affected activity throughout the department and plant, over-all plant production suffered.

3. The assembly job paid a guaranteed minimum wage for the first month, after which the standard piece-rate applied.

4. Many workers were unable to make a satisfactory wage after the month of training and experience and were thus dissatisfied and quit.

5. The various jobs in the department were not carefully distinguished and workers recruited and hired for one job were often assigned to another.

6. Working conditions, wages, and provisions for employee welfare were better than the community average.

For an Effective Plant Study

But a plant study, to be fully effective, goes further than merely identifying the problem. It must help in providing a solution in terms of Employment Service activities. Included in this plant study, therefore, were:

1. Assistance to the employer in establishing job classifications in the Assembly Department which would reflect the real occupationally significant distinctions among the jobs.

2. The preparation of written hiring specifications to be used jointly by the employer and the Employment Service local office.

3. The recommendation that a well-organized system of hiring, assignment, promotion, and transfer be established

4. The development and recording of information which made employment at this plant desirable.

5. The installation in the local office of a selection aptitude test battery for the bottleneck job of assembler.

As a result of this plant study, and the application of its findings to local office operations, the assembler positions were filled with test-selected applicants. All of the 20 workers thus selected and placed attained the minimum rate of production by the end of the first week of employment. Since the installation of this service almost a year ago, only one of the assemblers has left the job and this was due to extraneous causes. Plant turn-over during the 4 months preceding the service averaged about 6 percent a month; during the last 4 months it has averaged slightly over 1 percent a month.

Obviously, this plant study paid dividends in more effective local office operations in the most far-reaching sense. The above results were made possible by the plant study because it:

1. Provided a complete background of information about the plant, its jobs and employment processes.

2. Reduced the labor of order-taking to a minimum,

(*Continued on page 24*)

A Tool Is Sharpened for Greater Usefulness . . .

DICTIONARY OF OCCUPATIONAL TITLES*

By LEON LEWIS

Technical Service Division, United States Employment Service

SINCE ITS RELEASE in 1940, over 110,000 copies of the DICTIONARY OF OCCUPATIONAL TITLES have been put in circulation. The DICTIONARY is widely used, not only in the Employment Service, but also in schools, libraries, the various branches of the armed services and other agencies of the Government. It is also used by industry and labor organizations and many foreign countries have sought the DICTIONARY as a source of assistance in solving problems involving occupational data.

The reception accorded the DICTIONARY and the uses to which it has been put have fulfilled the hopes of its creators. However, despite its wide and varied use, the prime purpose of the DICTIONARY has been to serve the needs and further the objectives of our Nation-wide system of public employment offices.

During the past 8 years, the various local offices have contributed greatly towards the expansion of the original occupational coverage in the DICTIONARY. They have supplied the national office with job information (through Forms ES–282) with job analyses, job specifications, and a wealth of other materials. It was these materials, supplemented by data at the national level, that made possible the publication of several Supplements to the original volume of the DICTIONARY.

After the release of the several Supplements, the DICTIONARY material became so cumbersome that a great deal of time was lost by staffs of the local public employment offices in having to consult several volumes in order to locate needed data. Several investigations indicated that considerable savings would be realized in local offices if the DICTIONARY were revised so that all data could be assembled in two volumes, instead of the present three. This factor alone did not influence the preparation of a revision of the DICTIONARY, but also the significant comments coming from local offices which suggested improvements dictated by actual operations. It was such comments, supplemented by discussions with various individuals and operating groups, that proved the basis for the forthcoming revision.

In order that all who are interested may acquaint themselves with the revised edition, the following preview of content is presented:

1. All the data contained in the SUPPLEMENT will be incorporated into PARTS I and II (which will be called VOLUMES I and II). The various appendices now contained in PART I will be transferred to VOLUME II in order to equalize the size of the two books.

2. A new method of presenting job definitions will be used which will eliminate a considerable number of cross references in definitions and will simplify the use of the DICTIONARY. Briefly, related titles and definitions will be grouped and presented under the appropriate base title and definition.

   a. The reference techniques of "*A—who,*" "*Spec. for,*" and "*As for*" will no longer be used and in their place there will be used the reference phrases "*See*" or "*See under.*"

3. The whole category of **Laborer, Process,** will be eliminated and will be combined with **Laborer.**

4. The grouping titles for **Laborer** (any ind.) and **Laborer, Process** (any ind.) have been abolished and broad type of work classifications have been developed. The grouping titles for **Laborer** (const.); **Laborer Process,** (print. & pub.); and **Laborer, Process** (slaught. & meat pack.) have been eliminated and one classification assigned to each of them.

5. Occupational coverage has been expanded for professional occupations and for jobs found in Plastics Material Manufacturing, Electrical Equipment, Paper and Pulp, and other industries and specific occupations.

6. Jobs that refer to classification titles for code numbers only will have the appropriate code number published as a part of the job definition.

Will Facilitate Reference

These are the highlights of the forthcoming revision. On the opposite page there is presented a sample page of the new edition which illustrates some of the changes described above. For example, heretofore all definitions for related job titles were found where the job titles themselves appeared in the alphabetical arrangement. In the new edition, these titles will still be found in proper alphabetical order but will contain the reference phrase "*See under* (job title)" which directs the reader to that place where a job definition and code number will be found. An example of this is the job definition for **Airplane Mechanic, Line Service** which is found indented under the job title **Aircraft Mechanic.** Also, the reader will find that all job titles which referred to classification titles for code numbers only will have the appropriate code number published directly with the job title itself. Examples of this are the jobs of **Air Filler** and **Air-Hoist Operator.**

By comparing the sample page of the revised edition with any page of the current edition of the DICTIONARY it becomes fairly obvious to the user that the new edition will facilitate greatly the locating of job titles and their code numbers.

*Revised edition expected to be published early next year.

AIRCRAFT MECHANIC (air trans.) **5–80.120. aircraft mechanic, shop maintenance; airplane mechanic.** Inspects, overhauls, and services airplanes except engines: Repairs, replaces, and assembles such parts as wings, fuselage, tail assembly, landing or flotation gears, control cables, fuel and oil tanks, and lines. Removes damaged parts and installs replacement from stock, or duplicates wooden and metal parts. Performs necessary welding, metal fitting, covering, doping, rigging, and woodworking operations. Must hold license from Civil Aeronautics Authority as AIRCRAFT MECHANIC or perform duties under supervision of licensed worker.

AIRPLANE MECHANIC, LINE SERVICE (air trans.) **aircraft mechanic, line maintenance.** Services transport airplanes entering and leaving an airport and performs any repairs short of overhaul required to keep airplanes in safe flying condition: Makes adjustments to and replaces parts, such as tires, wiring, and instruments, using mechanics tools, chain hoists, jacks, and special wrenches. Inflates tires, fills gasoline tanks and oil reservoirs, greases airplanes with grease gun, and wipes motors clean with rags. Starts and warms up motors and taxies airplanes into position for servicing and loading. Makes check of airplanes before flight, trying brakes, operating controls, reading instruments, and checking other vital parts.

AIRPLANE MECHANIC, OVERHAUL (air trans.). Completely overhauls and repairs airplane parts: Dismantles and repairs metal tail, fuselage, and wing assemblies, such as ailerons, elevators, and rudders, cutting out damaged sections and cutting, shaping, welding, and riveting on sheet metal patches. Dismantles and repairs landing gear, interior furnishings, controls, and other equipment. Makes repairs when feasible or installs new parts, using such equipment as jacks, hoists, drill press, sheet-metal-working machines, and ordinary mechanics' tools. Repairs fabric surfaces by covering with special cloth and spraying with dope. May disconnect and remove engine from airplanes for overhaul [AIRCRAFT-ENGINE MECHANIC, LINE SERVICE].

AIRPLANE-TANK-AND-COWL MECHANIC (air trans.). Specializes in inspecting, testing, and repairing airplane fuel tanks and lines, engine cowls, and exhaust pipes: Removes equipment from airplane and examines it thoroughly. Tests tanks with air pressure and soapy water, feels them for weak spots, and forms and welds on sheet metal patches [WELDER, ACETYLENE]. Forms new exhaust pipes and engine cowls from sheet metal and welds them as necessary. Cuts and bends to shape new fuel lines. Uses various metal-working machines to cut and shape metal parts, and hand tools to remove and install them in airplanes.

AIRCRAFT MECHANIC, ENGINE CHANGE (air trans.) *see* AIRCRAFT-ENGINE MECHANIC, LINE SERVICE *under* AIRCRAFT-ENGINE MECHANIC.

AIRCRAFT-MECHANIC HELPER (air trans.) **7–80.120. airplane-mechanic helper.** Assists AIRCRAFT MECHANIC in overhauling and servicing airplanes: Removes damaged parts and cleans section adjacent to break. Holds new parts in position during installation. Uses woodworking and metal working tools to fabricate minor parts. Prepares metal surfaces for painting and prepares fabric surfaces for recovering and doping. Performs other duties as directed.

AIRPLANE-MECHANIC HELPER, LINE SERVICE (air trans.) **airplane-mechanic helper, flying service.** Assists AIRPLANE MECHANIC, LINE SERVICE in servicing transport airplanes entering and leaving an airport.

AIRCRAFT MECHANIC, LINE MAINTENANCE (air trans.) *see* AIRPLANE MECHANIC, LINE SERVICE *under* AIRCRAFT MECHANIC.

AIR-DRIER-MACHINE TENDER (paper & pulp) **6–41–452. continuous-loft operator.** Sizes surfaces of paper and dries paper to a smooth or cockled finish, using air drier: Positions roll of paper on feeder rack with assistance of BACK TENDER, AIR DRIER, using chain hoist. Heats size in machine tank. Supervises helpers in threading paper through sizing and drying equipment. Sets and regulates speed of machine in accordance with temperature and humidity. Adjusts tension of paper to obtain desired finish. Regulates temperature of air rising from ducts, varying temperature under and between sets of drier rolls and starts fans to circulate air. Directs removal of rolls for shipment or further processing. May supervise slitting and rewinding of paper into smaller rolls or cutting paper into sheets.

AIR-DRILL OPERATOR (metal mining, nonmetal mining; quarry.) *see* JACKHAMMER OPERATOR.

AIRDROME ELECTRICIAN (air trans.) **7–83–430. night-lighting man.** Inspects, cleans, and makes minor repairs to lights and beacon on a flying field: Periodically inspects beacon and lights, such as boundary and runway lights, and obstacle and airdrome-control lights, replacing broken lenses and burned out bulbs, cleaning lighting equipment, and making minor repairs. May perform other maintenance and repair duties to keep flying field in serviceable condition, such as filling in holes, leveling humps, and cleaning drains [LABORER, AIRDROME MAINTENENCE].

AIRDROME-MAINTENANCE CHIEF (air trans.) **5–95.031.** Supervises a crew in maintaining flying fields and their lighting systems in serviceable condition. Requisitions necessary supplies and materials.

AIR FILLER (cooperage) **8–38.10 air tester.** A LABORER. Fills tight barrels with compressed air preperatory to inspection by BARREL INSPECTOR, TIGHT: Pushes check valve into bunghole of barrel containing small quantity of water. Connects air hose to bung valve, and manipulates hand valves to admit air into barrel and to regulate pressure of the air. Removes hose from check valve and sets barrel aside.

AIR-FURNACE OPERATOR (found.) *see* REVERBERATORY FURNACE OPERATOR.

AIR-GUN OPERATOR (brick & tile, const.) *see* JACKHAMMER OPERATOR.

AIR-HAMMER MAN (forging) *see* PNEUMATIC-DROP-HAMMER OPERATOR *under* DROP-HAMMER OPERATOR I.

AIR-HAMMER MAN, CASTINGS (found.) *see* CHIPPER, FOUNDARY.

AIR-HAMMER MAN, CHASSIS FRAME (auto. mfg.) *see* CHASSIS-FRAME ASSEMBLER.

AIR-HAMMER OPERATOR (brick & tile; const.) *see* JACKHAMMER OPERATOR.

—— (metal mining; nonmetal mining; quarry.) *see* JACKHAMMER OPERATOR.

AIR-HOIST OPERATOR (any ind.) **9–73.10. air-lift man; compressed-air-bridge-crane operator; hoist runner.** A LABORER, HOISTING. Lifts and moves objects, such as machine castings and iron pipes by pulling ropes that control valves on air hoist or crane which travels on overhead rails. When working with an electric hoist, is known as ELECTRIC-HOIST OPERATOR.

AIR-LIFT MAN (any ind.) *see* AIR-HOIST OPERATOR.

AIR-LINE PILOT (air trans.) *see under* AIRPLANE PILOT, COMMERCIAL.

AIR-LINE-RADIO OPERATOR (air trans.) *see under* RADIO OPERATOR II.

Former truck driver and mechanic, now working as an electrical appliance repairman.

Uncovers Sources of Workers . .

OA Tools and Techniques Reduce Order Backlogs

By CLYDE NORRIS
Occupational Analyst
Iowa State Employment Service

REDUCTION OF ORDER BACKLOGS—this has long been one of the major goals of every Employment Service office and it has been the subject of many discussions. Analysis of this problem and consideration of possible solutions must involve, first of all, a careful study of what action has been taken to fill these orders. Naturally, the active application file should have always been searched for qualified applicants. If none were found, there are two obvious courses of action which may have been followed:.

A. The easy way, requiring only such clerical work as the following:

1. Advise employer that no qualified applicants are available, but that any qualified applicants who register for employment will be referred.

2. File the order and periodically contact the employer to determine if these workers are still needed.

B. The professional way, requiring specialized knowledge and the ability to apply that knowledge, such as:

1. Advise employer that no qualified applicants are available, but that every effort will be made to locate the workers he needs.

2. Search the entire application file for applicants with related skills which might be considered by the employer and discuss these applicant qualifications with employer.

The office which follows procedure "A" will make no referrals, unless, possibly from new registrations, and when the employer becomes convinced that the Employment Service cannot furnish the workers he needs, then he will likely seek other sources of available workers, and a cancellation of the order is probable. As a result, no one benefits, and this course of action is certainly *not* providing the applicant and employer the service to which they are entitled.

Now consider the probable results of following action "B." When an employer needs workers badly and has been advised that no fully qualified workers are available, he will, under ordinary circumstances, give favorable consideration to applicants possessing related skills. This is not a theory, it is a proven fact, and following the course of action as outlined under "B" will reduce the backlog of unfilled orders. It also proves to the employer that the Employment Service is making a real effort to serve him and that Employment Service personnel are trained professional workers.

To provide such service means that Employment Service personnel *must* be familiar with job requirements, job relationships, job families, etc., in order that related skills may be recognized and properly utilized. Since no single individual possesses a complete knowledge of skill requirements pertaining to all jobs, he must know where to locate this information when it is needed. Occupational Analysis materials have been developed for this very purpose. They furnish complete descriptions of thousands of jobs, list occupations which are *closely* related to each of these specific jobs, list occupations which are less closely related, continuing this listing to include most jobs which bear any significant degree of occupational relationship.

Even these close relationships in many cases would

never be thought of by the average individual. Consider as an example, an occupation which is quite common, "Tool and Die Maker." An order exists for which no qualified workers are available. Following action "B" above, we find that the foundry occupation of Patternmaker, Metal, is listed as being quite closely related to Tool and Die Maker. Let's consider some of the skills which are necessary for the performance of each of these jobs. Referring to the Volume Job Descriptions for "Job Machine Shops" and "Job Foundries," we find this information about the work performed:

Tool and Die Maker	*Patternmaker, Metal*
1. Studies blueprint or drawing.	1. Studies blueprint of metal castings.
2. Selects suitable metal stock, marks guide lines on the material, using precision measuring devices.	2. Selects rough casting or piece of metal stock, marks off on the material a layout of pattern parts, using measuring and marking devices.
3. Operates metalworking machines such as Drill Press, Engine Lathe, Milling Machine, Planer, Power Hacksaw, Shaper, Vertical Boring Mill.	3. Operates most common metalworking machines such as Drill Press, Milling Machine, Engine Lathe, Power Hacksaw, Shaper.
4. Removes small quantities of metal by using hand tools such as files and scrapers.	4. Imparts a smooth finish to pattern with a file, scraper, or other hand tool.
5. Checks dimensions of part with precision measuring instruments such as micrometers, calipers, and gages.	5. Checks final dimensions of pattern with micrometers, calipers, gages, and rules to insure precision.
6. Sharpens tools and cutters on Grinder.	6. Sharpens tools and cutters on Tool Grinder.

Comparison of the work performed by a Tool and Die Maker with the work performed by a Patternmaker, Metal, indicates definite similarities, even though one individual performs this work in a job foundry and the other in a job machine shop. If the employer who needs Tool and Die Makers is advised that an applicant is available who possesses the skills of a Patternmaker, Metal, he is most likely to give favorable consideration to such an applicant.

Locating this closely related occupation required more than just a casual knowledge of Occupational Analysis tools. Referring to the definition of Tool and Die Maker in the DICTIONARY OF OCCUPATIONAL TITLES, we find reference to the closely related jobs of Tool Maker, Die Maker II, and Machinist II. Referring to the pamphlet Job Description for this occupation, we find listed related jobs of a higher skill level, related jobs of a comparative skill level, related jobs of a lesser skill level, Army and Navy occupations of a related nature, plus a complete description of the job, physical activities required, working conditions, etc. Referring to the DOT, PART IV, we find 4–X2.010 as the related classification. Under this code, included in the list of nonentry occupations, which are closely related, we find Patternmaker, Metal. Referring to Job Family, 0–46, for Tool, Die, Fixture, Gage, and Jig Makers, we find Patternmaker, Metal, listed as being closely related.

Knowledge of these Occupational Analysis tools is, in itself, not enough; this knowledge must be applied effectively if there is to be any "reduction in order backlog." When search of the application file reveals applicants who do not measure up to all requirements listed on the order, but applicants possess some qualifications which apparently the employer could use, then the employer should be contacted and sold on the qualifications of these available applicants. These applicant qualifications are the stock in trade of the Employment Service; they should be analyzed, compared to indicated employer needs, and sold to employers, just as merchandise is sold to consumers. When the average employer needs workers and has been unable to secure fully qualified men or women, he will usually give favorable consideration to qualifications of those workers who most nearly meet his requirements. By following this course of action-restrictions applying to age, education, experience, etc., have repeatedly been lifted from orders.

Training by Demonstration

Training in the use and application of these Occupational Analysis tools is of vital importance, if the maximum use of the application file is to be made. Believing that one of the best methods of training personnel is by demonstration, we, of the Iowa State Employment Service, have developed a training unit dealing with the use of these tools, which has proved to be effective. This training has been given in individual local offices, by State office personnel, to the Manager, Supervisor of Placement, and all Selection and Referral Interviewers. Orders were selected from *each local office order file* with the criteria for selection being: (a) orders with *no* referral activity during past 7 days; (b) orders for workers in shortage occupations. An appropriate choice of one order was made from those selected. This order was used by the instructor in demonstrating the application of the essential steps to be taken in locating application cards of workers possessing skills of varying degrees of relationship.

These essential steps are as follows:

1. Local office application files (active and inactive) were checked for application cards which bear the same occupational title and code as the order. Qualifications of these applicants were compared with the specifications of the order in consideration for referral. Applicants from the inactive file were to be contacted in order to determine if they were available and interested in the job.

2. A list of *closely* related occupational titles and codes was prepared by using the following Occupational Analysis tools:

a. DOT—PART I—reference in job definition to closely related jobs;

b. Pamphlet Job Description—section "Other Sources of Workers";

c. DOT—PART II—other codes in the same 3-digit group;

d. DOT—PART IV—non-entry occupations related to this job;

e. Job Family O Series—codes listed under tables whose definitions correspond closely to requirements of the job under consideration;

f. Job Family I Series—codes listed in the same group under "A."

3. Local office application files (active and inactive) were checked for application cards bearing codes appearing in this list. Qualifications of these applicants were compared to the requirements of the order. Application cards of those applicants with indicated potentialities were selected for the following action:

a. Application cards from active file. Employer to be contacted by Placement Interviewer or Employer Relations Interviewer (preferably a personal contact by the latter) and qualifications of those applicants to be presented to employer for his consideration.

b. Application cards from inactive file. Applicants to be contacted in order to determine if they were available and interested in this job. If available, then procedure as outlined under 3–a to be followed.

4. An additional list of less closely related occupational titles and codes was prepared by using the following Occupational Analysis tools:

a. DOT—PART II:

(1) Codes having the same second and third digit but a different initial digit.

(2) Codes having the same initial digit but appearing in related industries as indicated by the industrial groupings of occupations starting on page XIV.

(3) Codes of a related nature found under Foreman and Apprentice code groups as listed on page XVIII.

b. DOT—PART IV:

(1) PART IV code related to the occupation in question and PART IV codes listed under related entry classifications.

(2) Codes listed under entry occupations, related to the job under consideration.

c. Job Families—O and I Series—code numbers listed under tables whose definitions correspond less closely to requirement of the job under consideration.

5. Local office application files were then checked for application cards bearing codes appearing on this list and procedure as set forth under #3 was then followed.

Practical application of this process consisted of each trainee being assigned one of the original orders selected. Each trainee then followed the steps as outlined above, developing his own lists of related occupations for his order, checking local office application files, etc. Trainees were, at all times, free to ask questions, and instructor demonstrated methods of determining what Occupational Analysis tools are available for specific occupations through use of the

(*Continued on page 24*)

Former farm hand and mechanic now working as a machinist.

Application of Job Analysis to Internal Operations . . .

A Coordinating Device for ES-UC Activities

By DABNEY M. TRICE, JR.

Supervisor of Training and Occupational Information
West Virginia Department of Unemployment Compensation

WITH THE RETURN of the Employment Service to State operation in November 1946, we were faced with the tremendous task of reassembling a complex entity which had been abruptly torn asunder in January 1942. The two parts, through the intervening years, were allowed to follow more or less diverse paths. To the average ES local office employee during this time, claims-taking was something that took place on the other side of the office. Similarly, to the UC representative, the ES was a big organization that kept growing and crowding the few remaining UC staff members into the corners of their communal buildings. They also issued something mysterious and confusing called "Statements of Availabiity" and offered jobs paying fabulous sums to able-bodied claimants who would leave the State to work. All this caused no end of confusion as to who did and who did not have a legitimate reasong for refusing a job. In the State offices of the UC and ES, an awareness existed of the over-all relationship between jobs and job insurance, but State laws had been changed, new procedures developed, old functions expanded or dropped, and specific information forgotten or had become vague.

Steps Leading to Coordination

The coordination of ES-UC activities, or any other activities for that matter, involves the following steps: functional analysis, job analysis, functional evaluation, job evaluation, planning, preparation of training material, presentation, and follow-up.

1. Functional Analysis.—This step is thoroughly covered in ES and UC procedure manuals which describe in detail the purposes and aims of both, and what general functions must be performed to accomplish them.

2. Job Analysis.—Job analysis has been defined as the process of observing jobs and reporting the pertinent facts. Obviously, to coordinate ES-UC activities, after learning what the functions or activities are, we must clearly define each job that exists within the function. Here a working knowledge of occupational analysis techniques is essential. The What, How, Why, and What is involved? in each job are basic information without which it would be impossible to obtain a proper concept of ES-UC operations.

The completion of a job anaylsis schedule on each different job found in local offices may not always be necessary, but if time and staff are avaialable it is recommended. The data obtained are often valuable in many ways, such as: establishment or revision of classification plans and salary schedules; time and cost analyses; employee evaluation; and other planning.

Before completing this step we should have at least a detailed summary of each local office job, identifying each major task. By combining this with the information obtained in Step 1, we can prepare a flow-of-work chart showing the sequence of work and the time elements involved. Job analysis is of no value in itself; in Step 4 we will put it to work.

3. Functional Evaluation.—This step—evaluation and comparison of UC and ES functions to ascertain duplicated work in broad phases—while important in the formula for coordination, should take little time. ES-UC functions, as stated in Step 1, are clearly defined and I know of no case where they are duplicative in their major functions.

4. Job Evaluation.—Job evaluation when used for coordinative purposes is primarily job comparison to discover duplicated work, needless expenditure of time, and tasks which may be combined, eliminated or reconstructed—in this step we put to work what we have learned in Step 2. Not only must the job information garnered from job analysis be correct and exact, but to properly use this information, the person or persons working with these end-products must be well grounded in the science of jobs and job structure.

One outcome of this evaluation was the development of a form for use in West Virginia by ES referral interviewers in reporting to the UC information affecting an applicant's claim status such as: refusal to accept referral; failure to answer call-in for referral; failure to report on job to which referred; and statements made by the claimant which would indicate limitation of availability.

One byproduct of this evaluation should be typical organizational charts covering offices of the various sizes found in the State. These, of course, are not practical as working models inasmuch as industrial and geographical divergences occur between the actual offices.

5. Planning.—Planning is an administrative function and is usually based on recommendations made by the technicians who have completed the first four steps.

Briefly it involves in this case the outlining of a course of action and the assigning of responsibility for this action to bring about the changes decided upon, following the technical analysis completed in Steps 1 through 4.

6. Preparation of Training Material.—The preparation of training material to encompass changes or additions of procedure leading to cooridnation or integration necessitates a close study of the results of

the preceding steps. In preparing material to train personnel to perform a task or job, it obviously is of the utmost importance that the persons preparing the material be both thoroughly familiar with the job and skilled in the application and interpretation of job analysis methods. If a local office job is to be integrated, it is advisable that all of the material pertaining to that job be in one unit, rather than the previous separate performance accentuated by separate units.

7. ***Presentation.***—In line with the stressing of jobs, tasks, and job knowledge in the preceding steps I believe it imperative that formal training in integrated jobs or coordinated activities be of a functional nature: that is, that the trainees do in class, under conditions as nearly similar as possible to those in an actual local office, those tasks which they will be expected to perform when they return to their official station. The sequence of training could be as follows: a) Tell the trainees the What, How, Why, and What is involved; b) if possible *show* the trainees the job or task in actual operation; c) have the trainees do the job; and d) evaluate trainees' performance and have trainees continue until performance is correct.

All of the above indicate use of occupational analysis methods.

8. ***Follow-Up.***—Follow-up may be made in a number of ways, some of which include: (a) analysis of reports (activities, time and cost, etc.); (b) questionnaires to ascertain retention of class-room training; and (c) administrative or technical evaluation of job performance.

This may well be done by checking the first four steps of this formula to ascertain progress reached in attaining goals outlined in Step 5.

(*Continued from page 17*)

requiring only the identification of a job by its Job Specification and an indication of how many workers were needed.

3. Provided information by means of which the jobs could be sold to the applicants.

4. Provided a medium through which the Employment Service might recommend careful employment practices in the plant to match local office recruitment activities.

5. Established that information about job requirements, physical demands, promotional opportunities and worker characteristics so vital to effective Employment Counseling.

6. Made possible the application of Occupational Tests for selection purposes.

These benefits to internal local office operations derive from a single plant study. In addition to these there are over-all benefits in terms of Employer and Community relations, since there is no better advertisement than a satisfied customer. As more employers are provided this type of service, the benefits multiply more than proportionally. Labor Market Information can be collected on a more realistic basis and Employment Counseling can be conducted on the basis of locally significant and accurate data about jobs and employment prospects. The Plant Study provides a solid frame of reference within which all of the Employment Service activities, techniques and services may be brought into play to achieve the objective of promoting high levels of employment and economic activity by facilitating the employment process.

Incidentally, providing the specialized service of which the plant study is a part and including the application and coordination of all Employment Service tools and techniques, both within the plant and in the local office, is a fine example of *Industrial Services.*

(*Continued from page 22*)

pamphlet "Occupational Analysis Publications" and the booklets "Summary of Occupational Analysis Activities," and "National Job Description Index."

During the question and answer period, which followed completion of the above, trainees were advised by the instructor to follow these fundamentals:

1. Consider most closely related occupations first, and if satisfactory results are not achieved, consider all indicated related occupations.

2. Use whichever and as many of these Occupational Analysis tools as may be necessary to produce maximum results.

3. After becoming accustomed to using these steps, it is not always necessary to list the complete code numbers of related occupations. Listing of the 3-digit groups only may suffice, and will save considerable time.

The effectiveness of this procedure in the reduction of "order backlogs" is going to depend primarily upon four factors:

1. Employment Service personnel possessing complete knowledge as to requirements of the job under consideration.

2. Use of Occupational Analysis tools must be fully understood.

3. Enough of these "steps to follow" must be completed to bring results.

4. Qualifications of available applicants must be presented to employers in the most effective manner.

We in Iowa believe that one of the best methods which can be used in training people is first, to show trainees how something can be done; and second, have trainees actually do this themselves. Also, that managers and supervisory personnel should participate in the training in order that they may know what can be accomplished. Results have proved satisfactory and the number of applicant placements from these related fields has been surprising.

THE EMPLOYMENT SERVICE REVIEW is indebted to the authors who contributed manuscripts for this theme on occupational analysis tools and techniques. More material was received than could be included in this issue. However, the remaining manuscripts will have consideration for future issues of the REVIEW.

U. S. GOVERNMENT PRINTING OFFICE: 1948

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UNITED STATES DEPARTMENT OF LABOR
UNITED STATES EMPLOYMENT SERVICE
WASHINGTON 25, D. C.

The EMPLOYMENT SERVICE REVIEW is published under authority of Public Resolution No. 57, approved May 11, 1922 (42 Stat. 541), as amended by Section 307, Public Act 212, Seventy-second Congress, approved June 30, 1932, with approval of the Director, Bureau of the Budget.

The EMPLOYMENT SERVICE REVIEW, a publication of the United States Employment Service and affiliated State Employment Services, is prepared in the Technical Service Division of the USES. Distributed without charge to personnel of the national and State employment service offices, it is also available on subscription at $1.50 a year (single copies 15 cents) from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. In countries other than the United States, Canada, and Mexico, annual subscription is $2.

Expressions of opinion in articles published in the REVIEW are those of the authors and are not to be construed as official opinions of the U. S. Employment Service.

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JUL 22 1948
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